

*Air Force Research Laboratory*

## QCPM WORKSHOP 2000 AGENDA

<http://xyz.plh.af.mil/>

TUESDAY OCTOBER 17<sup>TH</sup>

5pm - 7pm	Registration and Reception – Surf Lounge
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WEDNESDAY OCTOBER 18<sup>TH</sup>

8:00-8:45am	Breakfast Nauset V
8:45-9:00am	Opening Remarks - AFOSR and AFRL
9:00-9:30am	Introduction to Type-II Quantum Computers Yepez
<b>SESSION I</b>	NUCLEAR MAGNETIC RESONANCE SPECTROSCOPIC TECHNOLOGIES
9:30-10:00am	I.1 NMR Approaches to Quantum Information Processing Cory
10:00-10:30am	I.2 Improved Coherent Quantum Control of NMR Systems Fortunato
10:30-10:45am	Morning Break
<b>SESSION I</b>	CONTINUED
10:45-11:15am	I.3 NMR Implementations of Quantum Information Processing Pravia
11:15-11:45am	I.4 Massively Parallel NMR Spectrometers for Quantum Computing Applications Hammer
11:45am-12:00pm	Discussion
12:00-1:45pm	Lunch
<b>SESSION II</b>	QUANTUM LATTICE-GAS ALGORITHMS
1:45-2:15pm	II.1 Physical Quantum Algorithms Meyers
2:15-2:45pm	II.2 Quantum Lattice-Gas Automata Boghosian
2:45-3:00pm	Afternoon Break
<b>SESSION III</b>	POTENTIAL SOLID STATE TECHNOLOGIES
3:00-3:30pm	III.1 Solid-State Quantum Computing in Semiconductor Structures Privman
3:30-4:00pm	III.2 Type II Quantum Computing in Spectrally Selective Solids Shahriar
4:00-4:15pm	Discussion/Workshop Adjourns
5:30pm	Banquet Dinner – Ocean Front Dining Room

## QCPM WORKSHOP 2000 AGENDA

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THURSDAY OCTOBER 19<sup>TH</sup>

8:00-9:00am	Breakfast Nauset V
<b>SESSION IV</b>	PERSISTENT CURRENT QUBITS USING SUPERCONDUCTING TECHNOLOGIES
9:00-9:30am	IV.1 The Superconducting Persistent Current Qubit Orlando
9:30-10:00am	IV.2 Quantum Computing with Superconduction Electronics Berggren
10:00-10:15am	Morning Break
<b>SESSION V</b>	QUANTUM ALGORITHMS
10:15-10:45am	V.1 Modeling and Simulating Fragments of Quantum Algorithms in a Spin Quantum Computer with a Large Number (up to 1000) of Qubits Berman
10:45-11:15am	V.2 Quantum Algorithms for Fermionic Simulations Ortiz
11:15-11:45am	Discussion/Workshop Adjourns